In-House Consulting in a OneNASA Age

Jonathan Bryson
Policy and Standards Office
Goddard Space Flight Center

PM Challenge 2007

February 7, 2007

Perspective

This presentation is an intellectual exploration into the roles that a Government staff office can play to be an in-house consultant. Some real examples from recent activities will be provided.

Notes:

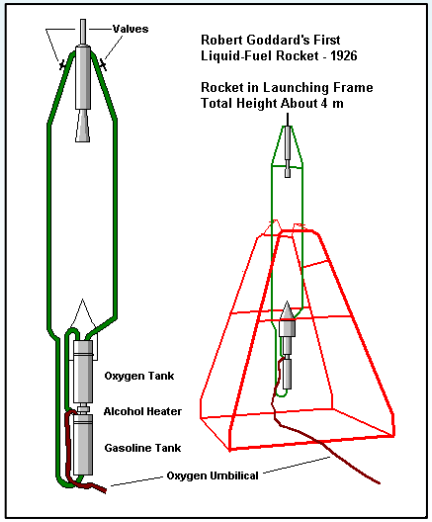
- This is not a primer on the NASA Governance Model, NPR7120.5D, or Earned Value Management (EVM) policy.
- The concepts and perspective are drawn to date from out-of-house EVM experiences.
- Our “in-house consultant” capability includes Civil Servants and support contractors. This is contrasted with EVM consultants who provide full products and services.

Policy and Standards Office

NASA-Goddard Space Flight Center created a Policy and Standards Office in February 2005 to focus on policy, career development, earned value management (EVM) and cost estimating.

Vision: *To enable, organize and improve our systems, processes, and training for the GSFC resources community at large in support and contribution to assuring the success of Goddard's scientific and exploration endeavors.*

"Without the Product, there is no Process."



Agency Governance Model

The new NASA "Agency Governance" model* emphasizes the importance of the "products" (spacecraft, launch vehicles, etc.) residing within the Program Management chain. Other organizations within NASA support these efforts:

NPD1000:

5.0 Implementation (p. 21):

Program and project management is located and executed at the Centers for Mission Directorate Assigned Programs. All other organizational elements exist to support successful program and project execution.

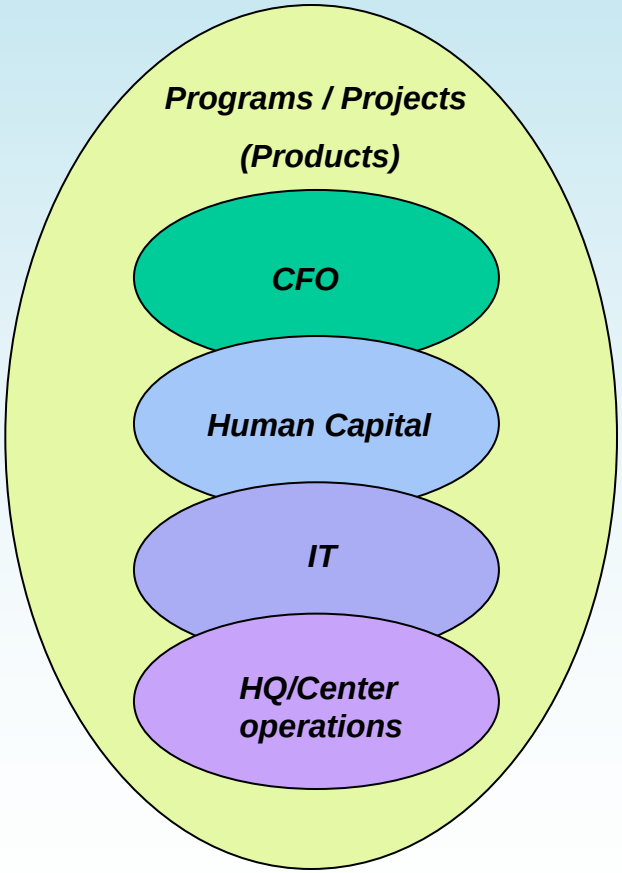
NPR7120.5D Draft *(11/06)*

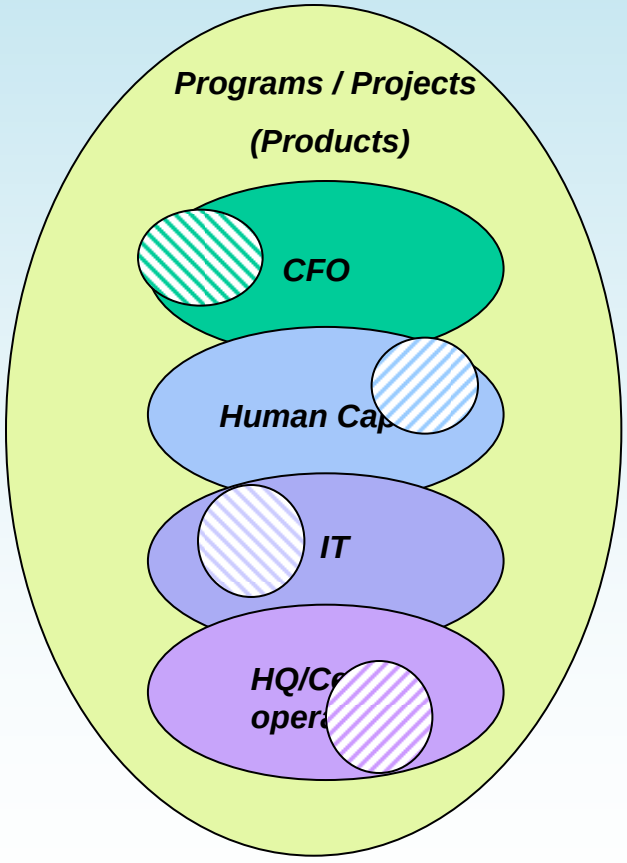
3.1.2 (h) Center Director – is responsible for establishing, developing and maintaining the institutional capabilities (processes and procedures, human capital, facilities and infrastructure) required for the execution of programs and projects, including the system of checks and balances to ensure the technical integrity of programs and projects assigned to the Center.

* There is another major dimension of Technical Authority/Technical Excellence not addressed here.

The Challenge

Over time, these staff offices tend to focus more on their own processes and lose sight of the product. The focus on “compliance” and “limits” becomes favored over support and enabling. In some cases, Projects seek out their own ad hoc informal understanding of Agency policies and procedures and hire their support contractors for these services.

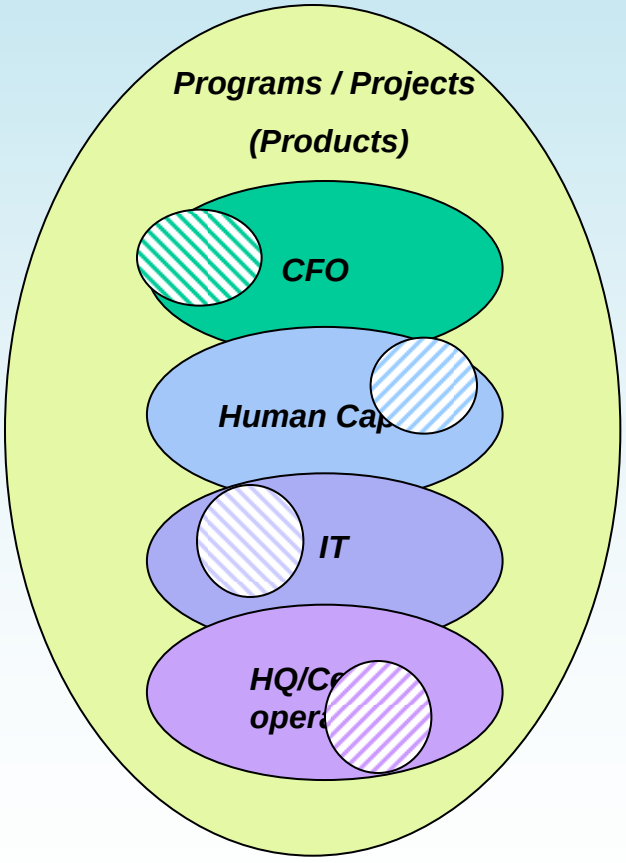


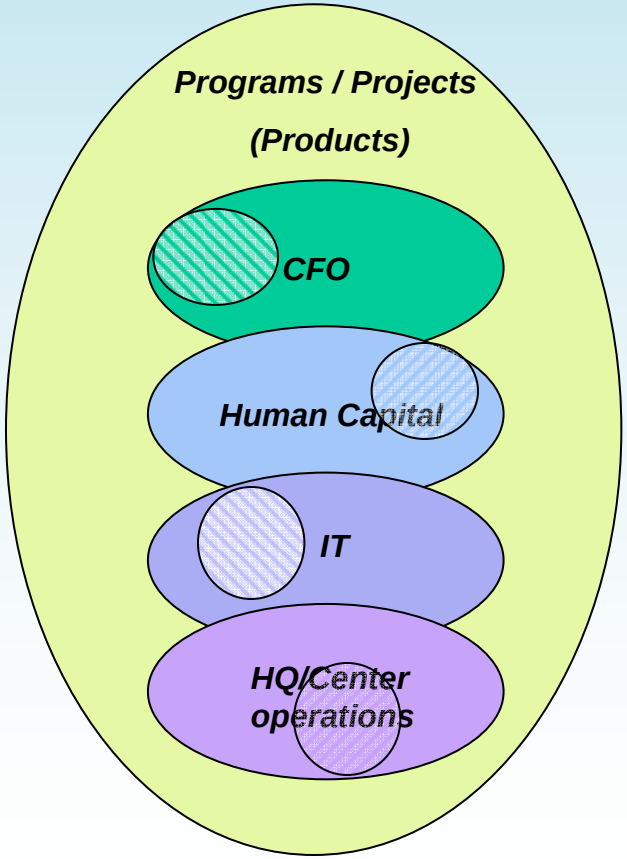


= pockets where Projects go out on their own

Possible Response

If staff offices can take on the perspective of a consultant (i.e. understand the Project Manager's requirements, help interpret policies, develop applied expertise, provide an ongoing support role, etc.), then the functional relationship will be healthier. Ideally, Projects' feedback to staff offices makes them more relevant and helps to justify their role.





= pockets where Projects go out on their own

Examples of Consulting Roles

- Interpreting new policies and processes for busy Project Managers
- Advocating for HQ and Center consistency in policy and implementation
- Becoming the local expert on the process and making the rollout or kickoff process clearer to a Project
- Developing training materials with the latest initiatives and policies incorporated
- Facilitating and partnering with other support offices including making the field personnel or organizations a better customer

One can make an argument that the true OneNASA approach is working if we follow the Governance model, communicate well up and down, and all seek out support laterally as needed to accomplish our missions.

EVM Focal Point Role

- NPR7120.5D requires Projects to perform Earned Value Management on in-house builds and out-of-house contracts.
- Each NASA Center has an EVM Focal Point. At a minimum, the Focal Point helps to communicate and interpret Agency policy. Support and compliance roles vary.
- NASA-GSFC chose to hire two industry support contractors with expertise in EVM implementation and business systems tools including SAP. The rationale was to establish more efficient EVM processes and to prepare for upcoming in-house EVM.

What follows is a more in-depth look at Integrated Baseline Reviews (IBRs) and the consulting relationship.

Integrated Baseline Review (IBR) Objectives

1) Ensure the technical content of work packages and cost accounts is consistent with the contract scope of work; **2)** Ensure that there is a logical sequence of effort planned consistent with the contract schedule**; 3)** Assess the validity of allocated cost account and IPT budgets, both in terms of total resources and time-phasing**; 4)** Conduct a technical assessment of the earned value methods that will be used to measure progress to assure that objective and meaningful performance data will be provided**; 5)** To establish a forum through which the government program manager and the program technical staff gain a sense of ownership of the cost/schedule management process; …to ensure that baseline integrity is maintained throughout the life of the contract. ***(NDIA Project Manager IBR Handbook)***

"Verify / Validate that the Project can execute this contract within scope given the available technical requirements, schedule and budgeted resources"

The complexity and effort required for the IBR processes are best accomplished with the support of a knowledgable consultant.

Our IBR Approach

- Focus on Communication
- Knowing that the Project is a customer and drives the process
- Involving the team at the start and setting expectations
- Using a structured approach but knowing that each project is different customizing the solution, tools and training materials
- Just-in-time training using real data
- Seeking adjustments to the plan or process as required
- Identifying concerns and findings and working to a early resolution
- Maintaining our objectivity based upon sound EVM practices and goals of NASA HQ and our CFO

This approach is very consistent with the approach an external consultant would take to support a Project or other organization.

Typical Integrated Baseline Review Timeline

The Key Milestones leading up to an Out-of-House IBR:

Major Program Activities	Timeframe
• Kick-off Meeting	At start of IBR process
• Establish Team & Review IBR Approach	>= 90 days prior
• Notify Project/Contract of IBR Requirements	~ 90 days prior
• Communicate and Coordinate with All team Members	> = 60 days prior
• Team Member Training (TBD)	60 days prior
• Data Package Receipt (Notebooks)	>= 6 weeks prior
• Data Analysis/Discussion	4 - 6 weeks prior
• Telecon/Videocon - Data Calls completed	4 weeks prior
• IBR Preparation Meeting (set Agenda)	1 week prior
• On-Site Visit	At IBR

If this process is managed well, the Review itself can be “by exception” and accomplished in one day, often before or after a Monthly Program Review. This front-loaded approach appears to be unique based upon Government and industry experience.

IBR Outcomes

Tangible:

- Trained Government and Contractor teams
- Identify issues and gaps in the technical, schedule, cost, and risk plans
- Establish a working Performance Measurement Baseline
- Identify and enable programmatic corrections and adjustments

Less Tangible:

- Establish responsibility in the technical team for schedule, cost and risk.
- Better communications within and between Govt. and contractor teams
- Identify issues the Contractor Program Manager cannot alone
- Get support of Government or Contractor upper management

➔ ***These are all value-added for the Project Manager.***

Is In-House Consulting to be preferred?

Our perspective is that a Project Manager could buy the same advice and consulting from a capable EVM vendor

In-house consulting approach might be preferred because:

- a staff office can be closer to the Agency product
- greater opportunity for consistency and efficiencies (e.g. IBR Tool Kit) in the processes
- greater ongoing commitment to the organization's goals and culture including training the next generation of Project Managers and their teams
- reinforces assigned roles for staff offices and promotes a OneNASA culture
- generally less expensive

Undesirable In-House Consulting Roles

"Enforcer":	Consultant simply dictates instructions from HQ and loses objectivity to "do what makes sense" for the Project → Project Managers will work around you
"Go Native":	Other extreme where consultant compromises policy or good practice in supporting the Project → Project Manager may appreciate skirting the accountability here but this will not lead to long-term success for the Project or the EVM consultant
Over "NASA-cize":	Consultants who create and impose their own unique standards and processes → Harder and more expensive for Projects to work with industry and partners

Undesirable In-House Consulting Roles (cont'd)

"Become insular":

Solutions and tools can become stale if in-house consultants do not stay current with their Agency and external relationships (same can happen with any technical or business professional)

→ Dangerous if Project Manager doesn't know the difference

.

The Future

- Formalize our IBR experiences into a case study
- Factor our lessons learned into Agency and Center processes
  - As an organization, are we enforcing or are we enabling?
  - Are we creating opportunities for in-house competency and training the next generation?
  - Exploring when and how to use in-house or out-of-house consultant roles
- Leaders need to set the expectation for Staff Office personnel to work with Projects and for Projects to utilize Staff Offices

Policy and Standards Office
Points of Contact

Jonathan Bryson, Office Chief, NASA
Jonathan G. Bryson@nasa.gov 301-286-8330

Vanessa Johnson, EVM Center Lead, SGT Inc.
Vanessa.G.Johnson.1@gsfc.nasa.gov 301-286-4683

Jeffrey Kottmyer, EVM Tool Support, SGT Inc.
Jeffrey.T.Kottmyer.1@gsfc.nasa.gov 301-286-1572

Office Address:
Bldg. 8/344
NASA-GSFC Code 152
8800 Greenbelt Rd.
Greenbelt, MD 20771